MODULE IV

STORAGE IN TANKS

IV.A. APPLICABILITY

IV.A.1. The requirements of this module apply to the operation of the hazardous waste (spent solvent) tank system at the facility. The tank is a vertical, aboveground tank having an operating capacity of 13,986 gallons. The Permittee shall comply with R315-8-10 and all applicable requirements established in this permit when managing hazardous waste in this tank system.

IV.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

IV.B.1. The Permittee may store hazardous waste, identified by one or more of the waste codes outlined below, in the hazardous waste tank at the facility, provided the waste is not prohibited by Condition II.C.3:

IV.B.1.a. D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D021, D027, D028, D035, D039, and D040.

IV.B.2. Hazardous waste identified by waste codes other than those above shall not be placed in the hazardous waste tank system at the facility.

IV.B.3. The Permittee shall not place hazardous waste in a tank other than the hazardous waste tank identified by this permit.

IV.C. SECONDARY CONTAINMENT AND INTEGRITY ASSESSMENTS

IV.C.1. For the existing tank system, the Permittee shall keep on file at the facility, a written assessment, reviewed and certified by an independent, qualified Utah registered professional engineer that attests to the tank system's integrity. This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the wastes being stored to ensure that it will not collapse, rupture, or fail.

IV.C.2. The Permittee shall maintain the tank system (including ancillary equipment and secondary containment) as constructed and in accordance with ATTACHMENT 8 and maintain this system in such a manner as to ensure that it performs in accordance with R315-8-10 (specifically 40 CFR 264.193).

IV.D. NEW AND REPLACEMENT TANK SYSTEMS OR COMPONENTS

IV.D.1. The Permittee shall comply with Condition I.D.3. when requesting additional, or replacement tank systems, components, or ancillary equipment.

IV.E. GENERAL OPERATING REQUIREMENTS

IV.E.1. The Permittee shall mark and maintain on the tank designated for hazardous waste storage, the words "HAZARDOUS WASTE" in lettering at least four inches in height and in a color to contrast with the tank.

IV.E.2. The Permittee shall not place hazardous wastes or other materials in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail.

IV.E.3. The Permittee shall use appropriate controls and practices to prevent spills and overflows from the tank or containment system.

IV.E.4. The Permittee shall cease operating the tank system in the event of an equipment failure, power supply failure or if the tank is found unfit for use as a result of the annual interior inspection.

IV.E.5. The Permittee shall maintain the tank system (including ancillary equipment and secondary containment) in good repair. Routine maintenance shall be performed at sufficient frequency to ensure that the tank system remains in good repair. Malfunctions and deterioration shall be corrected as expeditiously as possible.

IV.E.6. The tank system shall be designed, constructed, maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden discharge of hazardous waste or hazardous waste constituents to the air, soil, groundwater, or surface water which could threaten human health or the environment.

IV.E.7. The Permittee shall empty, visually inspect the general condition of the facility tank system, and measure the corrosion of the tank system at least once each year and certify that it can safely store the hazardous waste authorized by this permit to be managed in the tank. These inspections and tests shall be certified by an independent, qualified Utah registered professional engineer.

IV.E.8. The Permittee shall maintain the level of hazardous waste in the tank system at or below 13,986 gallons.

IV.E.9. The Permittee shall equip the tank system with and maintain a high-level alarm system in accordance with the drawings and specifications in ATTACHMENT 8.

IV.E.10. Hazardous waste or other material may be placed in the tank system only if the waste or material is compatible with the wastes already stored in the tank, and compatible with the tank or tank system construction material.

IV.E.11. Ignitable wastes placed in the tank system shall be managed in a manner that protects the waste from sources of ignition and the Permitte shall comply with all other applicable fire code requirements with respect to operation of the hazardous waste storage tank.

IV.E.12. No reactive waste shall be placed in the tank system.

IV.E.13. The tank secondary containment system shall be maintained and operated such that it remains free of both cracks and gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.

IV.E.14. If the tank secondary containment area contains any material, it shall be emptied within 24 hours of discovering the contents. This means that all material, liquid, or solid, or both, will be removed. If ongoing precipitation prevents the emptying of all material from the secondary containment system, the secondary containment system shall be emptied within 24 hours of the end of the precipitation event. However, enough material shall be removed during the event to maintain sufficient containment capacity in the system. If ice from precipitation forms in the tank system secondary containment, and removal within 24 hours of discovery poses a significant risk of causing damage to the secondary containment, the Permittee may leave the ice in place until it melts without being subject to the precipitation removal requirements of this condition. Precipitation in the form of ice in the tank secondary containment shall be removed the same business day as melting occurs.

IV.E.15. The tank system secondary containment shall provide containment for at least 100% of the volume of the hazardous waste storage tank.

IV.F. RESPONSE TO LEAKS OR SPILLS

IV.F.1. In the event of a leak or a spill from the tank system, from the secondary containment system, or if either system becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions:

IV.F.1.a. Immediately stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release;

IV.F.1.b. Remove waste and accumulated precipitation from the tank system and/or secondary containment system within 24 hours of detection of the leak or spill to prevent further release and allow for inspection and repair of the system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall orally notify the Executive Secretary and request additional time;

IV.F.1.c. Immediately conduct a visual inspection of the release, and based upon that inspection: prevent further migration of the leak or spill to soils or surface water and remove and properly manage any visible contamination of the soil or surface water; and

IV.F.1.d. Unless the release is one pound or less and immediately contained and cleaned up, the Permittee shall notify the Executive Secretary as soon as possible, but no later than 24 hours after detection of a release from the tank system to the environment. Within 30 days of detecting a release to the environment from the tank system, the Permittee shall

submit a written report to the Executive Secretary identifying details of the release including:

IV.F.1.d.i. Likely route of migration of the release;

IV.F.1.d.ii. Characteristics of the surrounding soil;

IV.F.1.d.iii. Results of any monitoring or sampling conducted in connection with the release;

IV.F.1.d.iv. Proximity to downgradient drinking water, surface water, and populated areas; and

IV.F.1.d.v. Description of response actions taken or planned.

IV.F.1.e. The Permittee shall close the tank system in accordance with the Closure Plan, ATTACHMENT 6, unless the following are satisfied:

IV.F.1.e.i. For a release caused by a spill that has not damaged the integrity of the tank system, the Permittee may return the tank system to service as soon as the released waste is removed and repairs, if necessary, are made;

IV.F.1.e.ii. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service;

IV.F.1.e.iii. For a release to the environment caused by a leak from a component of the tank system without secondary containment, the Permittee shall provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of R315-8-10 (specifically 40 CFR 264.193) before it can be returned to service, unless the source of the leak is an aboveground portion of the tank system that can be inspected visually. If the source of the leak is an aboveground component that can be inspected visually, the component shall be repaired and may be returned to service without secondary containment as long as the certification requirements of Condition IV.F.1.e.iv. are satisfied. If a component is replaced to comply with the requirements of this condition, that component shall satisfy the requirements for new tank systems or components in R315-8-10 (specifically 40 CFR 264.192 and 40 CFR 264.193). Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection, the entire component must be provided with secondary containment in accordance with R315-8-10 (specifically 40 CFR 264.193) prior to being returned to use.

IV.F.1.e.iv. If the Permittee has repaired the tank system in accordance with Condition IV.F.1.e. and the repair has been extensive, the tank system must not be returned to service unless the Permittee has obtained a certification by an independent, qualified, Utah-registered, professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. The certification shall be submitted to the Executive Secretary within seven days after returning the tank system to use.

IV.F.2. The Permittee shall comply with the requirements specified in the Contingency Plan, ATTACHMENT 2, in the event there is a release from the tank system that threatens human health or the environment.

IV.G. ORGANIC AIR EMISSION STANDARDS

IV.G.1. The hazardous waste storage tank is not subject to the requirements in Condition IV.G. if the tank meets one or more of the exemption standards found in R315-8-22 (specifically 40 CFR 264.1082(c)).

IV.G.2. If not exempt under Condition IV.G.1., the Permittee shall control air emissions from the hazardous waste tank using Tank Level 1 controls including the following:

IV.G.2.a. The Permittee may only store in the tank system, waste with an organic vapor pressure equal to or less than 5.2 kPa.

IV.G.2.b. The maximum organic vapor pressure for wastes being stored in the tank shall be determined using the procedures specified in R315-8-22 (specifically 40 CFR 264.1083(c)). The Permittee shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level equal to or greater than 5.2 kPa.

IV.G.2.c. The tank shall be equipped and maintained with a fixed roof designed to meet the following requirements:

IV.G.2.c.i. The fixed roof and its closure devices shall be an integral part of the tank and shall form a continuous barrier over the entire surface area of the hazardous waste in the tank.

IV.G.2.c.ii. The fixed roof shall be maintained such that there are no visible cracks, holes, gaps, or other open spaces between the roof section joints or between the roof edge and the tank wall.

IV.G.2.c.iii. Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or connected by a closed-vent system that is vented to a control device. The control device shall be designed to remove or destroy organics in the vent stream, and shall be operating whenever hazardous waste is managed in the tank, except as provided below:

IV.G.2.c.iii.A. During periods when it is necessary to provide access to the tank for performing the activities of Condition IV.G.2.c.iii.B., venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the

activity, the Permittee shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

IV.G.2.c.iii.B. During periods of routine inspection, maintenance, or other activities needed for normal operations, or for removal of accumulated sludge or other residues from the bottom of the tank.

IV.G.2.c.iv. The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life.

IV.G.3. Whenever hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

IV.G.3.a. Opening of closure devices or removal of the fixed roof is allowed at the following times:

IV.G.3.a.i. To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Following completion of the activity, the Permittee shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the tank.

IV.G.3.a.ii. To remove accumulated sludge or other residues from the bottom of the tank.

IV.G.3.b. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the Permittee based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable or hazardous materials.

IV.G.3.c. Opening of a safety device, as defined in R315-7-30 (specifically 40 CFR 265.1081) is allowed at any time conditions require doing so to avoid an unsafe condition.

IV.G.4. Transfer of hazardous waste to the tank or from the tank shall be conducted using continuous hard or flexible piping or another closed vent system that does not allow exposure of the hazardous waste to the atmosphere.

IV.H. ORGANIC AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

IV.H.1. The Permittee shall comply with the applicable requirements of R315-8-18 (40 CFR 264.1050 – 1065), for all equipment, including each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and associated control devices in contact with or containing hazardous waste with an organic concentration of at least 10 percent by weight. The facility is assumed to be in heavy liquid service and the Permittee shall maintain the necessary documentation at the facility to support this assumption.

IV.I. INSPECTION SCHEDULES AND PROCEDURES

IV.I.1. The Permittee shall conduct inspections of the tank system as specified in ATTACHMENT 5.

IV.I.2. The Permittee shall submit the results of the annual tank inspection to the Executive Secretary by July 1st of each year.

IV.I.3. All tests for tanks, corrosion or foundation integrity shall be certified by an independent, Utah registered, professional engineer qualified by experience and education in the appropriate engineering field.

IV.J. SPECIAL TANK PROVISIONS FOR REACTIVE WASTES

IV.J.1. The Permittee shall not place reactive waste in the hazardous waste tank system.

IV.K. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTES

IV.K.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the tank system.

IV.K.2. The Permittee shall not place hazardous waste in the tank system if it has not been decontaminated and previously held an incompatible waste or material.

IV.L. CLOSURE AND POST-CLOSURE CARE

IV.L.1. At closure of the tank system, the Permittee shall follow the procedures in ATTACHMENT 6 and remove or decontaminate all waste residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with waste and manage them as hazardous waste unless decontaminated to the standard established in ATTACHMENT 6.

IV.L.2. If the Permittee demonstrates that all contaminated soils cannot be practically removed or decontaminated, in accordance with the Closure Plan, the Permittee shall close the tank system as a landfill and perform post-closure care following the contingent procedures in ATTACHMENT 6.

IV.M. SUBPART AA EMISSION STANDARDS FOR PROCESS VENTS

IV.M.1. The Permittee operates a solvent recycling operation consisting of a vacuum distillation system and supporting ancillary equipment. Waste solvent is fed to the system directly from the waste solvent tank or via a drum washer where containers are emptied. The distillation system includes one process vent located between the solvent water separator and the clean discharge vessel as identified on Drawing 7113-4200-301 in Attachment 7. Engineering calculations have demonstrated that emissions from the process vent are below the standards in R315-8-17 (specifically 40 CFR 264.1032(a)(1)). A copy of these calculations shall be kept on-site in the facility operating record.

IV.M.2. If the Permittee plans to make changes to the solvent recycling operation that could increase emission rates, the Permittee shall submit to the Executive Secretary, prior to implementing the changes, updated emission calculations demonstrating that operation of the system with the planned changes still meets the emission standards in R315-8-17. Should calculations show that the planned changes could cause the emission rates to exceed the standards in R315-8-17 (specifically 40 CFR 264.1032(a)(1)), the Permittee shall submit a modification request proposing how the facility will meet the emission standards in R315-8-17 under the higher emission rate operating mode. Operation of the solvent recycling system with the proposed changes that result in higher emissions shall not occur until under the necessary permit modifications have been approved that will assure compliance with R315-8-17.